

**Municipality/Organization:** Dartmouth, Massachusetts

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**EPA NPDES Permit Number:** MAR041102

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**MaDEP Transmittal Number:** W-

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**Annual Report Number  
& Reporting Period:** No. 3: March 06-March 07

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## **NPDES PII Small MS4 General Permit Annual Report**

### **Part I. General Information**

Contact Person: David T. Hickox, P.E.

Title: Superintendent

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#### Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:

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Printed Name: Michael J. Gagne

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Title: Executive Administrator

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Date: March 21, 2007

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## **Part II. Self-Assessment**

**The Town of Dartmouth Massachusetts has completed the required self-assessment and have determined that our municipality is in compliance with all permit conditions.**

## Part III. Summary of Minimum Control Measures

### 1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1-1	Partnerships	DPW,BOH	Partnerships, Press releases, distribute	Partnered with Turn the Tide, including Lloyd Center, Coalition for Buzzards Bay, and Umass Dartmouth on a partnership to restore the health of Dartmouth coastal estuaries and rivers. Replaced missing or damaged tributary signs..	Continue to evaluate and promote partnerships.
Revised	<i>Install tributary signage .</i>	Planning	.Maintain and replace as necessary tributary signs.		
1-2	Educational Materials	DPW,BOH	Distribute Fact Sheets to municipal buildings, Paint winning “Storm Drain Stencil” in designated areas..	Town has installed over 200 permanent storm water logos on catch basin inlet. Used Umass Dartmouth college interns over the summer of 2006 to evaluate and prioritize watersheds and installation locations..	Continue with the installation of storm water logos and maintain water tributary signs.
Revised					
1-3	Reaching Diverse Audiences	DPW, BOH		The program was represented to the various boards, the general public as well as the building/construction industry by the TDSCC in addition to important program functions being detailed in the local newspaper along with color pictures of the new tributary signs .	Continue the installation of stormwater logos throughout Town. Include community groups in the installation effort. Board of Health to complete distribution of septic and grease trap maintenance information.
Revised					
Revised					

Revised					
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**1a. Additions**


## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2-1 Revised	Storm Drain Stenciling	Planning, ConCom, DPW	Number of installed stormwater logos.	Town has installed over 200 metal stormwater logos utilizing Umass colleger interns	Coordinate ongoing installation of storm drains logos with civic organizations, ie Boy Scouts, Buzzards Bay Coalition
2-2 Revised	Existing Program Assistance	DPW, ConCom	Update of the NPDES Phase II Program to Town Boards	Presentations were made by staff to the Board of Public Works, Board of Health and presented to local newspaper for a story on the installation of the tributary signs.	Maintain communication on storm water issues with various Boards.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

### 2a. Additions

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### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3-1	Mapping	DPW, ConCom	Coordination of data collection with students from New Bedford Vocational High School	Received Atlas of Stormwater Discharges in the Buzzards Bay Watershed from the Buzzards Bay NEP.	Establish priority areas for identification of illicit discharges. Utilize coastal water quality data from Town of Dartmouth Natural Resources Department to identify potential illicit discharges..
Revised			Utilize Buzzards Bay National Estuary Program data and Stormwater Discharge Atlas	Town has funded the GIS drainage plan upgrade based on recent fly over. Town is currently in negotiations with consultants for plan preparation.	
3-2	Legal Prohibited – Enforcement	BOH, ConCom	Continued review and upgrading of existing stormwater related bylaws. Restrict feeding of geese.	Board of Health and Conservation Commission regulations have been reviewed to strengthen if required areas that prohibit illicit connections to storm drain systems.	Monitor regulations and revise as necessary.  Review need to remove geese from Apponagansett Bay Watershed.
Revised				Identified potential sewage/drain overflow source and worked with party to identify and resolve problem..	
3-3	Detection Plan	BOH, DPW	Water quality testing and monitoring.	The Town continued to fund and partnership with the Loyd Center for Environmental Studies and the University of Massachusetts on the water quality testing and stream flow monitoring as part of the Turn the Tides Project. Prioritize areas for drainage review.	Continue Turn the Tides partnership and based on water quality testing results, the Town will move forward with the Source Location phase on the Detection Plan. The Town's I/I test equipment will be used to aid in the location of illicit connections.
Revised					

3-4	Awareness & Education	BOH,Planning	Update the placement of Fact Sheets in Public Facilities, prepare and fund Household Hazardous Waste Day.	Fact sheets and Stormwater informational brochures have been obtained and displayed, Hazardous Waste Days have been advertised and held at the DPW Highway Yard.	Corrective action will be documented and local the newspaper will be informed as to the problem and solution.
Revised					
Revised					
Revised					

### 3a. Additions




#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4-1	Stormwater Management	ConCom	Providing Stormwater Management Guidelines & Requirements	The Town has continued to enforce storm water BMP's for private sector project. Town continues review and upgrading if necessary of the aquifer protection bylaw and the bylaw as approved by Town Meeting . Conservation Commission continues to inventory structural storm water technologies within the Town . Continued the review of standards for Stormwater related to the construction of residential and commercial developments.	Continue the review of regulations as necessary and incorporate bylaw revisions as the pertain to stormwater and new Aquifer Protection guidelines.
Revised					
4-2	Stormwater Regulations	Planning Board	Review of Subdivision Regulations relative to stormwater control during construction.	Enforcement of subdivision regulations that prevent the release of residential lots for sale until all stormwater facilities have been constructed and are fully operational.	Review, update and implement stormwater regulations relative to construction activities.
Revised					
4-3	Education Materials	DPW	Provide Stormwater Information to all contractors that have been awarded construction contracts with the Department of Public Works.	All contractors performing site work or utility work on significant size projects are provided with a Memorandum and wall guide to Planning & Implementing Erosion & Sediment Control Practices.	Continue to provide information to contractors involved in site development related projects.
Revised					
Revised					

Revised					
Revised					

#### 4a. Additions


### 5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5-1	Stormwater Management	ConCom	Enforcement of Town of Dartmouth's and Mass DEP's Stormwater Guidelines.	Ongoing review and monitoring of the current stormwater bylaws and regulations. The Town has a designated drainage consultant who is responsible for the review of all stormwater designs. The Town's Environmental Affairs Coordinator monitors all construction related activities.	Continue the current post construction monitoring of sites.
Revised					
5-2	Drainage Consultant	ConCom	Consistent Technical Review of Stormwater design and policy.	Consultant provided technical input to the Aquifer Protection Bylaw Committee during the Bylaw upgrade in preparation for Town Meeting. Consultant continued the review of all Notice of Intent drainage calculations.	Continue Consultant reviews.
Revised					
5-3	Subdivision Rules & Regulations	Planning	Enforcement of regulations pertaining to stormwater facilities being fully operational prior to release of lots.	Developers are aware that they must construct all drainage facilities, and provide fully operational system prior to the release of any lot for sale.	Monitor and update regulations as needed.
Revised					

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**5a. Additions**


## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6-1	Employee Training	DPW	Provide employee training in conjunction with 40 CFR 112 program.	DPW has completed a review of the SPCC Plan, and the Supt. of Public Works presented a workshop to all field personnel on “Good Housekeeping Methods”. Presented examples of daily maintenance checks and field operations.	Continue annual training of employees in stormwater related procedures.
Revised					
6-2	O&M Program	DPW	Implementation of O&M program designed to reduce and or eliminate the discharge of pollutants from various DPW facilities.	DPW Highway Division has revised the snow and ice procedure to eliminate the use of road sand in winter operation. Operators have been trained in the proper procedures for delivery of salt to roadway. Roadways have been swept by mechanical means immediately after the winter and has produced measureable improvement to the roadway silt and sand entering the resource areas. All road salt/sand is stored within the salt shed. Staff monitors all exterior stored equipment for fluid leakage. Stormwater detention ponds at the Highway Division garage have been serviced and the remaining Highway Division Yard is swept clean of salt residues, the existing oil/gas separator has been fully serviced after the winter season in preparation for the new season	Town will continue to solicit funding for a new “salt only” covered facility. Grants and other funding sources will be explored.
Revised					
6-3	Roadway Maintenance	DPW	Sweep all streets. Clean all catch basins annually.	The Town swept all primary roadways and a majority of secondary roadways. The Town has cleaned all catch basins in Town under private contract.	The sweeping of <b>all</b> primary streets prior to the cleaning of catch basins to allow for improved operation of the deep sump catch basin design.
Revised					

Revised					
Revised					
Revised					

**6a. Additions**


## 7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
7-1	BMP's for TMDL Reduction	DPW	Implement BMP's for existing stormwater facilities..	Town uses new Vacuum Truck for servicing stormwater facilities. Town has completed design, permitting for the installation of a major Vortechnic Unit funded by a DEP grant. Town is currently seeking funding to install this unit..	Continue administrative record for monitoring reductions in TMDL's resulting from the installation new BMP's on existing watersheds.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

### 7a. Additions


## 7b. WLA Assessment

#### **Part IV. Summary of Information Collected and Analyzed**

- The Buzzards Bay National Estuary Program has prepared and distributed “Atlas of Stormwater Discharges in the Buzzards Bay Watershed”. Document was the result of a multi-agency cooperative study of stormwater discharges along the coast.
- Professional Staff have implemented the new Aquifer Protection Bylaw.
- The Town’s ongoing support and contribution of \$336,000 to partner with the Lloyd Center, The Coalition for Buzzards Bay, and the University of Massachusetts on the Turn the Tide Project is a commitment by the Town to protect its most natural asset by restoring the health and vitality of Dartmouth’s waters.
- The program has continued to maintain tributary signs lost due to damage or theft.
- The program has publicized the local estuary project in the local newspaper including the overall progress being made by the UMass Dartmouth School of Marine Science and Technology of the various brooks and ponds in the Town of Dartmouth.
- Conservation Commission continues to categorize all structural storm water units in Town.
- UMass Dartmouth Civil Engineering Summer Interns installed several hundred metal stormwater runoff logos on catch basins. Locations were chosen by the interns by prioritizing watersheds.
- The Town funded and purchased 1000 storm water logos.
- The Dartmouth Natural Resources Officer has been retained to assist in the development of coastal water quality data.
- The Dartmouth Planning Board has adopted NPDES permit requirement standards in the Subdivision Regulations.



## Part V. Program Outputs & Accomplishments (OPTIONAL)

### Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

### Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

### Legal/Regulatory

In Place

	Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with “X”)				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with “X”)				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

### Mapping and Illicit Discharges

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(# ) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

### Construction

Number of construction starts (>1-acre)	(#)	
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Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and \$)	
Complaints/concerns received from public	(#)	

### **Post-Development Stormwater Management**

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

### **Operations and Maintenance**

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	(\$)	

Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	